

AMENDMENT TO THE CLAIMS

1. (CURRENTLY AMENDED) A computer readable storage medium having a tangible component with an application programming interface encoded thereon with computer-executable instructions for exposing an AdHocQueryCriteria method to specify a query of data in a relational database in terms of entity properties and fields, said AdHocQueryCriteria method returning a result including metadata indicating entities associated with data, the method receiving a plurality of parameters to specify the query, comprising:

- an entityAliasList parameter, identifying an object that forms part of the query of data;
- a JoinList parameter;
- a selectList parameter;
- a whereExpression parameter; and
- an orderByList parameter.

2. (PREVIOUSLY WITHDRAWN) An application programming interface exposing an operator method to implement arithmetic operations, the method receiving a plurality of parameters to specify the arithmetic operation, comprising:

- a left parameter indicating an item to a left of an arithmetic operator;
- a right parameter indicating an item to a right of the arithmetic operator; and

the method returning an ArithmeticExpression parameter based on the operator and the left and right parameters.

3. (PREVIOUSLY WITHDRAWN) The application programming interface of claim 2 wherein the left parameter comprises an ArithmeticExpression data type and the right parameter comprises

an object data type.

4. (PREVIOUSLY WITHDRAWN) The application programming interface of claim 2 wherein the left parameter and right parameter both comprise ArithmeticExpression data types.

5. (PREVIOUSLY WITHDRAWN) The application programming interface of claim 2 wherein the left parameter comprises an object data type and the right parameter comprises an ArithmeticExpression data type.

6. (PREVIOUSLY WITHDRAWN) An application programming interface exposing an operator method to implement arithmetic operations, the method receiving a plurality of parameters to specify the arithmetic operation, comprising:

a left parameter indicating an item to a left of an arithmetic operator;

a right parameter indicating an item to a right of the arithmetic operator; and

the method returning a BooleanExpression parameter based on the operator and the left and right parameters.

7. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing an AssignmentExpression method to represent an expression to be assigned to a property of an entity, the method receiving an expression parameter to specify the expression to be assigned.

8. (PREVIOUSLY WITHDRAWN) The API of claim 7 wherein the API exposes a GetExpressionEnumerator method that returns an ExpressionEnumerator parameter.

9. (PREVIOUSLY WITHDRAWN) The API of claim 7 wherein the API

exposes a GetExpressionContainer method that returns an ExpressionContainer parameter.

10. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing a CollectionCriteria method to specify a collection query of data in a relational database in terms of entity properties and fields, the method receiving a plurality of parameters to specify the collection query, comprising:

- an entityCollectionType parameter;
- an entityAliasList parameter;
- a JoinList parameter;
- a whereExpression parameter; and
- an orderByList parameter.

11. (WITHDRAWN) A computer readable medium having a tangible component with an application programming interface encoded thereon for exposing an AdHocQueryCriteria method to return an AdHocQueryCriteria parameter, based on a plurality of received parameters to specify the AdHocQueryCriteria parameter, comprising:

- an entityAliasList parameter that identifies an object by referring to the object or an alias for the object, the object forming a part of the query of data; and
- a SelectList parameter.

12. (WITHDRAWN) The computer readable medium of claim 11 wherein the received parameters further comprise:

- an orderByList parameter.

13. (WITHDRAWN) The computer readable medium of claim 12 wherein the received parameters further comprise:

- a joinList parameter.

14. (WITHDRAWN) The computer readable medium of claim 11 wherein the received parameters further comprise:  
a whereExpression parameter.

15. (WITHDRAWN) The computer readable medium of claim 14 wherein the received parameters further comprise:  
a joinList parameter.

16. (WITHDRAWN) The computer readable medium of claim 15 wherein the received parameters further comprise:  
an orderByList parameter.

17. (WITHDRAWN) The computer readable medium of claim 11 wherein the received parameters further comprise:  
a joinList parameter.

18. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing a CollectionCriteria method to return a CollectionCriteria parameter based on a received parameter to specify the CollectionCriteria parameter to return, the received parameter comprising:  
an entityAlias parameter.

19. (PREVIOUSLY WITHDRAWN) The API of claim 18 wherein the CollectionCriteria method returns the CollectionCriteria parameter based on a plurality of received parameters comprising:  
a whereExpression parameter.

20. (PREVIOUSLY WITHDRAWN) The API of claim 18 wherein the CollectionCriteria method returns the CollectionCriteria parameter based on a plurality of received parameters comprising:  
an OrderByList parameter.

21. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing a CollectionCriteria method to return a CollectionCriteria parameter based on at least one received parameter to specify the CollectionCriteria parameter to return, the received parameter comprising:

an entityAlias parameter.

22. (PREVIOUSLY WITHDRAWN) The API of claim 21 wherein the at least one received parameter comprises:

an entityCollectionType parameter.

23. (PREVIOUSLY WITHDRAWN) The API of claim 22 wherein the at least one received parameter comprises:

an orderByList parameter.

24. (PREVIOUSLY WITHDRAWN) The API of claim 23 wherein the at least one received parameter comprises:

a whereExpression parameter.

25. (PREVIOUSLY WITHDRAWN) The API of claim 22 wherein the at least one received parameter comprises:

a whereExpression parameter.

26. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing a CollectionCriteria method to return a CollectionCriteria parameter based on at least one received parameter to specify the CollectionCriteria parameter to return, the received parameter comprising:

an entityAliasList parameter.

27. (PREVIOUSLY WITHDRAWN) The API of claim 26 wherein the at least one received parameter comprises:

an entityCollectionType parameter.

28. (PREVIOUSLY WITHDRAWN) The API of claim 27 wherein the at least one received parameter comprises:  
an orderByList parameter.

29. (PREVIOUSLY WITHDRAWN) The API of claim 28 wherein the at least one received parameter comprises:  
an joinList parameter.

30. (PREVIOUSLY WITHDRAWN) The API of claim 26 wherein the at least one received parameter comprises:  
an orderByList parameter.

31. (PREVIOUSLY WITHDRAWN) The API of claim 27 wherein the at least one received parameter comprises:  
a whereExpression parameter.

32. (PREVIOUSLY WITHDRAWN) The API of claim 26 wherein the at least one received parameter comprises:  
a whereExpression parameter.

33. (PREVIOUSLY WITHDRAWN) The API of claim 28 wherein the at least one received parameter comprises:  
a whereExpression parameter.

34. (PREVIOUSLY WITHDRAWN) The API of claim 26 wherein the at least one received parameter comprises:  
an joinList parameter.

35. (PREVIOUSLY WITHDRAWN) The API of claim 34 wherein the at least one received parameter comprises:  
a whereExpression parameter.

36. (PREVIOUSLY WITHDRAWN) The API of claim 34 wherein the at least one received parameter comprises:  
an orderByList parameter.

37. (PREVIOUSLY WITHDRAWN) The API of claim 27 wherein the at least one received parameter comprises:  
an joinList parameter

38. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing an EntityAlias method to return an EntityAlias parameter based on at least one received parameter to specify the EntityAlias parameter to return, the received parameter comprising:

a parentKey parameter; and  
an entityType parameter.

39. (PREVIOUSLY WITHDRAWN) The API of claim 38 wherein the at least one received parameter comprises:  
an alias parameter.

40. (PREVIOUSLY WITHDRAWN) The API of claim 38 wherein the at least one received parameter comprises:  
an alias parameter.

41. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing an EntityAliases method to return an EntityAliasList parameter based on at least one received parameter to specify the EntityAliasList parameter to return, the received parameter comprising:  
an entityAliases parameter.

42. (PREVIOUSLY WITHDRAWN) An application programming interface

(API) exposing an EntityCriteria method to return an EntityCriteria parameter based on at least one received parameter to specify the EntityCriteria parameter to return, the received parameter comprising:

an entityKey parameter.

43. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing an EntityCriteria method to return an EntityCriteria parameter based on at least one received parameter to specify the EntityCriteria parameter to return, the received parameter comprising:

an entityAlias parameter; and  
a whereExpression parameter.

44. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing an EntityCriteria method to return an EntityCriteria parameter based on at least one received parameter to specify the EntityCriteria parameter to return, the received parameter comprising:

an entityAliasList parameter; and  
a whereExpression parameter.

45. (PREVIOUSLY WITHDRAWN) The API of claim 44 wherein the at least one received parameter comprises:

a joinList parameter.

46. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing an EntitySetUpdateCriteria method to return an EntitySetUpdateCriteria parameter based on at least one received parameter to specify the EntityCriteria parameter to return, the received parameter comprising:

an entityAliasList parameter; and  
a propertyAssignmentList.



47. (PREVIOUSLY WITHDRAWN) The API of claim 46 wherein the at least one received parameter comprises:  
a whereExpression parameter.

48. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing an InnerJoin method to return a JoinExpression parameter based on at least one received parameter to specify the JoinExpression parameter to return, the received parameter comprising:

- a leftEntityAlias parameter;
- a rightEntityAlias parameter; and
- a boolExpression parameter.

49. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing a LeftJoin method to return a JoinExpression parameter based on at least one received parameter to specify the JoinExpression parameter to return, the received parameter comprising:

- a leftEntityAlias parameter;
- a rightEntityAlias parameter; and
- a boolExpression parameter.

50. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing an OrderBy method to return an OrderByList parameter based on at least one received parameter to specify the OrderByList parameter to return, the received parameter comprising:

- an arguments parameter.

51. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing an OrderByExpression method to return an OrderByExpression parameter based on at least one received

parameter to specify the OrderByExpression parameter to return, the received parameter comprising:  
a property parameter.

52. (PREVIOUSLY WITHDRAWN) The API of claim 51 wherein the at least one received parameter further comprises:  
a direction parameter.

53. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing a RightJoin method to return a JoinExpression parameter based on at least one received parameter to specify the JoinExpression parameter to return, the received parameter comprising:  
a leftEntityAlias parameter;  
a rightEntityAlias parameter; and  
a boolExpression parameter.

54. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing a CriteriaWithOrderBy method to return an entityAliasList parameter based on at least one received parameter to specify the entityAliasList parameter to return, the received parameter comprising:  
a joinList parameter;  
a whereExpression parameter; and  
an orderByList parameter.

55. (PREVIOUSLY WITHDRAWN) An application programming interface (API) exposing a JoinExpression method to define a join operation, on entities represented by data in a data store, based on at least one received parameter, the received parameter comprising:  
a joinType parameter;  
a leftEntityAlias parameter;

a rightEntityAlias parameter; and  
a booleanExpression parameter.

56. (NEW) A method for querying a relational database, the method comprising:
- receiving a user query indicative of a plurality of objects and a partial set of properties of the objects;
  - identifying a partial set of properties of an object to be returned, based upon the user query;
  - identifying the objects in the relational database, based upon the user query;
  - identifying metadata from the identified objects in the relation database;
  - storing a result based upon the identified objects, identified metadata and the partial set of properties of the objects on a computer-readable storage medium.